



DEPARTMENT OF THE NAVY

NAVAL SUPPORT ACTIVITY WASHINGTON
1411 PARSONS AVENUE SE, SUITE 340
WASHINGTON NAVY YARD DC 20374-5034

5090
Ser N4/232
July 25, 2014

Mr. Brain P. Trulear
Chief, Permits Branch

EPA Region, (3WP41)
1650 Arch Street
Philadelphia, PA 19103

Dear Mr. Trulear:

SUBJECT: PERMIT RENEWAL APPLICATION FOR WASHINGTON NAVY YARD, NATIONAL
POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT (NPDES) PERMIT DC0000141

Naval Support Activity Washington is submitting the renewal application for NPDES Permit DC0000141. The application is being submitted in accordance with the permit and Code of Federal Regulations (C. F.R.) §122.41 (b).

If you have questions or need any additional information, you may contact Ms. Rita Smith who can be reached at (301) 227-0001 or via email at rita.smith1@navy.mil

Sincerely,

A handwritten signature in blue ink, reading "Durant S. Graves", is positioned above the printed name.

DURANT S. GRAVES
Installation Environmental Program Director
By direction of the Commanding Officer

Enclosures: (1) Permit Renewal Application, NPDES Permit DC0000141

Final

**National Pollutant Discharge Elimination System
Permit Application**

**Washington Navy Yard
Washington, DC**

Contract Task Order JU85

July 2014

Prepared for

**Department of the Navy
Naval Facilities Engineering Command
Mid-Atlantic**

Under the

**NAVFAC Multimedia Program
Contract N62470-10-D-3009**

Prepared by



Chantilly, Virginia

Application Forms and Supporting Data

USEPA Application forms and supporting data are presented in the following attachments.

Attachments


- 1 Permit Application Forms
 - USEPA Form 1
 - USEPA Form 2F
 - Outfall 001
 - Outfall MS4-001E
 - Outfall 005
 - Outfall 006
 - Outfall 007
 - Outfall 008
 - Outfall 009
 - Outfall 013
 - Outfall 014A
 - Outfall CSO-015G
 - Outfall CSO-015H

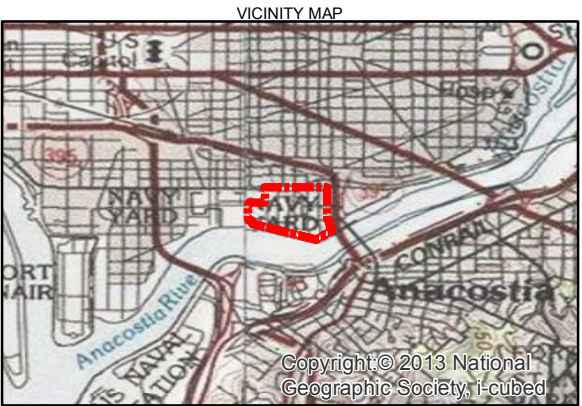
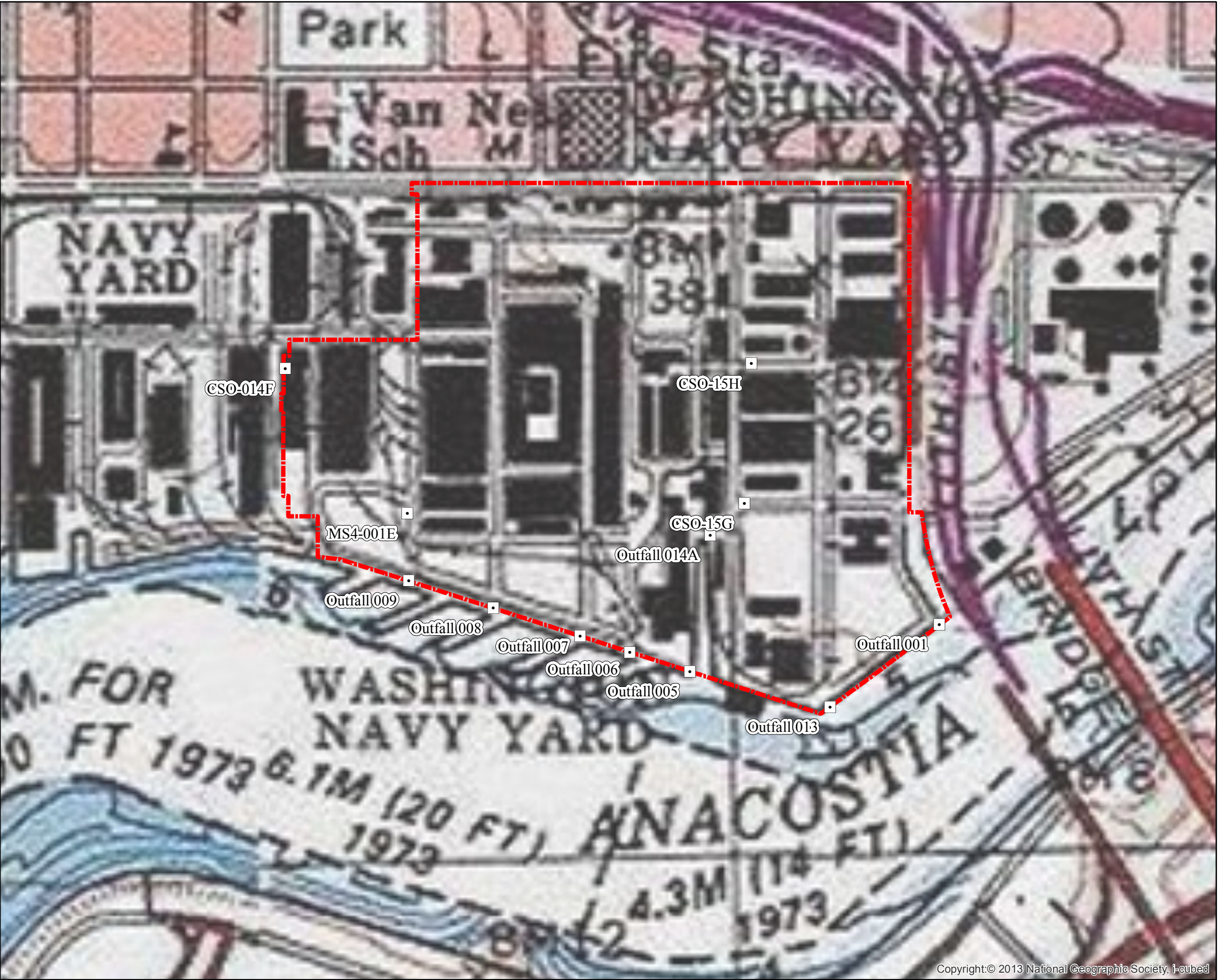
USEPA Form 1

- Attachment 1-XI – WNY Topographic Map

FORM 1 GENERAL		U.S. ENVIRONMENTAL PROTECTION AGENCY GENERAL INFORMATION Consolidated Permits Program (Read the "General Instructions" before starting.)		I. EPA I.D. NUMBER	
				S	T/A
				F	C
				1	2
				13	14
				15	
LABEL ITEMS		PLEASE PLACE LABEL IN THIS SPACE		GENERAL INSTRUCTIONS	
I. EPA I.D. NUMBER				If a preprinted label has been provided, affix it in the designated space. Review the information carefully; if any of it is incorrect, cross through it and enter the correct data in the appropriate fill-in area below. Also, if any of the preprinted data is absent (the area to the left of the label space lists the information that should appear), please provide it in the proper fill-in area(s) below. If the label is complete and correct, you need not complete Items I, III, V, and VI (except VI-B which must be completed regardless). Complete all items if no label has been provided. Refer to the instructions for detailed item descriptions and for the legal authorizations under which this data is collected.	
III. FACILITY NAME					
V. FACILITY MAILING ADDRESS					
VI. FACILITY LOCATION					
II. POLLUTANT CHARACTERISTICS					
INSTRUCTIONS: Complete A through J to determine whether you need to submit any permit application forms to the EPA. If you answer "yes" to any questions, you must submit this form and the supplemental form listed in the parenthesis following the question. Mark "X" in the box in the third column if the supplemental form is attached. If you answer "no" to each question, you need not submit any of these forms. You may answer "no" if your activity is excluded from permit requirements; see Section C of the instructions. See also, Section D of the instructions for definitions of bold-faced terms .					
SPECIFIC QUESTIONS		Mark "X"		SPECIFIC QUESTIONS	
		YES	NO	FORM ATTACHED	
A. Is this facility a publicly owned treatment works which results in a discharge to waters of the U.S.? (FORM 2A)			X		B. Does or will this facility (either existing or proposed) include a concentrated animal feeding operation or aquatic animal production facility which results in a discharge to waters of the U.S.? (FORM 2B)
		16	17	18	
C. Is this a facility which currently results in discharges to waters of the U.S. other than those described in A or B above? (FORM 2C)			X		D. Is this a proposed facility (other than those described in A or B above) which will result in a discharge to waters of the U.S.? (FORM 2D)
		22	23	24	
E. Does or will this facility treat, store, or dispose of hazardous wastes? (FORM 3)			X		F. Do you or will you inject at this facility industrial or municipal effluent below the lowermost stratum containing, within one quarter mile of the well bore, underground sources of drinking water? (FORM 4)
		28	29	30	
G. Do you or will you inject at this facility any produced water or other fluids which are brought to the surface in connection with conventional oil or natural gas production, inject fluids used for enhanced recovery of oil or natural gas, or inject fluids for storage of liquid hydrocarbons? (FORM 4)			X		H. Do you or will you inject at this facility fluids for special processes such as mining of sulfur by the Frasch process, solution mining of minerals, in situ combustion of fossil fuel, or recovery of geothermal energy? (FORM 4)
		34	35	36	
I. Is this facility a proposed stationary source which is one of the 28 industrial categories listed in the instructions and which will potentially emit 100 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)			X		J. Is this facility a proposed stationary source which is NOT one of the 28 industrial categories listed in the instructions and which will potentially emit 250 tons per year of any air pollutant regulated under the Clean Air Act and may affect or be located in an attainment area? (FORM 5)
		40	41	42	
III. NAME OF FACILITY					
C. SKIP WASHINGTON NAVY YARD					
15 16 29 30 69					
IV. FACILITY CONTACT					
A. NAME & TITLE (last, first, & title)					
C. SMITH, RITA, STORMWATER PROGRAM MANAGER					
15 16 45 46 48 49 51 52 55					
B. PHONE (area code & no.)					
3012270001					
V. FACILITY MAILING ADDRESS					
A. STREET OR P.O. BOX					
C. 1411 PARSONS AVE SE SUITE 200					
15 16 45					
B. CITY OR TOWN					
C. WASHINGTON					
15 16 40 41 42 47 51					
D. STATE					
DC					
E. ZIP CODE					
20374					
VI. FACILITY LOCATION					
A. STREET, ROUTE NO. OR OTHER SPECIFIC IDENTIFIER					
C. 1411 PARSONS AVE SE SUITE 200					
15 16 45					
B. COUNTY NAME					
46 70					
C. CITY OR TOWN					
C. WASHINGTON					
15 16 40 41 42 47 51 52 54					
D. STATE					
DC					
E. ZIP CODE					
20374					
F. COUNTY CODE (if known)					

CONTINUED FROM THE FRONT

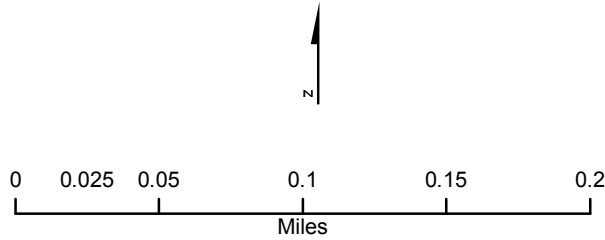
VII. SIC CODES (4-digit, in order of priority)										
A. FIRST					B. SECOND					
C	7	9	7	1	(specify) NATIONAL SECURITY	C	7		(specify)	
15	16	17	18			15	16	17	18	
C. THIRD					D. FOURTH					
C	7			(specify)	C	7		(specify)		
15	16	17	18		15	16	17	18		
VIII. OPERATOR INFORMATION										
A. NAME								B. Is the name listed in Item VIII-A also the owner?		
C	8	WASHINGTON NAVY YARD							<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	
15	16								15 16	
C. STATUS OF OPERATOR (Enter the appropriate letter into the answer box. If "Other," specify)								D. PHONE (area code & no.)		
F = FEDERAL S = STATE P = PRIVATE				M = PUBLIC (other than federal or state) O = OTHER (specify)				A 3012270001		
				F (specify)				15 16 17 18 19 20 21 22 23 24		
E. STREET OR P.O. BOX										
1411 PARSONS AVE SE SUITE 200										
25										
F. CITY OR TOWN						G. STATE	H. ZIP CODE	IX. INDIAN LAND		
C	B	WASHINGTON					DC	20374	Is the facility located on Indian lands? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
15	16						40 41	42 43	51 52	
X. EXISTING ENVIRONMENTAL PERMITS										
A. NPDES (Discharges to Surface Water)					D. PSD (Air Emissions from Proposed Sources)					
C	T	I			C	T	I			
9	N			DC0000141	9	P			DC007 - TITLE V	
15	16	17	18		15	16	17	18		
B. UIC (Underground Injection of Fluids)					E. OTHER (specify)					
C	T	I			C	T	I			
9	U				9				(specify)	
15	16	17	18		15	16	17	18		
C. RCRA (Hazardous Wastes)					E. OTHER (specify)					
C	T	I			C	T	I			
9	R			DC9170024210	9				(specify)	
15	16	17	18		15	16	17	18		
XI. MAP										
<p>Attach to this application a topographic map of the area extending to at least one mile beyond property boundaries. The map must show the outline of the facility, the location of each of its existing and proposed intake and discharge structures, each of its hazardous waste treatment, storage, or disposal facilities, and each well where it injects fluids underground. Include all springs, rivers, and other surface water bodies in the map area. See instructions for precise requirements. See Attachment 1-XI</p>										
XII. NATURE OF BUSINESS (provide a brief description)										
<p>THE WASHINGTON NAVY YARD CONTINUES TO BE THE 'QUARTERDECK OF THE NAVY' AND SERVES AS THE HEADQUARTERS FOR NAVAL DISTRICT WASHINGTON. THE YARD HOUSES NUMEROUS SUPPORT ACTIVITIES FOR THE FLEET AND AVIATION COMMUNITIES.</p>										
XIII. CERTIFICATION (see instructions)										
<p>I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.</p>										
A. NAME & OFFICIAL TITLE (type or print)						B. SIGNATURE		C. DATE SIGNED		
MONTE ULMER, COMMANDING OFFICER NSA WASHINGTON								23JUL14		
COMMENTS FOR OFFICIAL USE ONLY										
C										
15	16									



LEGEND

- Outfalls
- Installation Boundary

Notes:
1. Outfall CSO-014F is inactive and out of operation.



Attachment 1-XI
Washington Navy Yard
Washington, D.C.

USEPA Form 2F

- Attachment 2F-I/IVA - WNY Outfalls
- Attachment 2F-III – WNY Site Drainage Map
- Attachment 2F-IVB– Material Storage Areas
- Attachment 2F-IVC –Best Management Practices
- Attachment 2F-V – Illicit Discharge Survey Summary

Please print or type in the unshaded areas only.

EPA ID Number (copy from Item 1 of Form 1)
DC0000141Form Approved. OMB No. 2040-0086
Approval expires 5-31-92FORM
2F
NPDESU.S. Environmental Protection Agency
Washington, DC 20460**Application for Permit to Discharge Storm Water
Discharges Associated with Industrial Activity****Paperwork Reduction Act Notice**

Public reporting burden for this application is estimated to average 28.6 hours per application, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate, any other aspect of this collection of information, or suggestions for improving this form, including suggestions which may increase or reduce this burden to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, Washington, DC 20460, or Director, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

I. Outfall Location

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. Outfall Number (list)	B. Latitude			C. Longitude			D. Receiving Water (name)
SEE ATTACHMENT							
2F-I/IV.A							

II. Improvements

A. Are you now required by any Federal, State, or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

1. Identification of Conditions, Agreements, Etc.	2. Affected Outfalls		3. Brief Description of Project	4. Final Compliance Date	
	number	source of discharge		a. req.	b. proj.
NOT APPLICABLE					

B: You may attach additional sheets describing any additional water pollution (or other environmental projects which may affect your discharges) you now have under way or which you plan. Indicate whether each program is now under way or planned, and indicate your actual or planned schedules for construction.

III. Site Drainage Map

Attach a site map showing topography (or indicating the outline of drainage areas served by the outfalls(s) covered in the application if a topographic map is unavailable) depicting the facility including: each of its intake and discharge structures; the drainage area of each storm water outfall; paved areas and buildings within the drainage area of each storm water outfall, each known past or present areas used for outdoor storage of disposal of significant materials, each existing structural control measure to reduce pollutants in storm water runoff, materials loading and access areas, areas where pesticides, herbicides, soil conditioners and fertilizers are applied; each of its hazardous waste treatment, storage or disposal units (including each area not required to have a RCRA permit which is used for accumulating hazardous waste under 40 CFR 262.34); each well where fluids from the facility are injected underground; springs, and other surface water bodies which received storm water discharges from the facility.

SEE ATTACHMENT 2F-III

Continued from the Front

IV. Narrative Description of Pollutant Sources

A. For each outfall, provide an estimate of the area (include units) of impervious surfaces (including paved areas and building roofs) drained to the outfall, and an estimate of the total surface area drained by the outfall.

Outfall Number	Area of Impervious Surface (provide units)	Total Area Drained (provide units)	Outfall Number	Area of Impervious Surface (provide units)	Total Area Drained (provide units)
	SEE ATTACHMENT 2F-I/IV.A				

B. Provide a narrative description of significant materials that are currently or in the past three years have been treated, stored or disposed in a manner to allow exposure to storm water; method of treatment, storage, or disposal; past and present materials management practices employed to minimize contact by these materials with storm water runoff; materials loading and access areas, and the location, manner, and frequency in which pesticides, herbicides, soil conditioners, and fertilizers are applied.

SEE ATTACHMENT 2F-IV.B

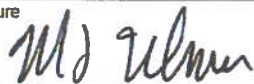
PESTICIDES, HERBICIDES, AND FERTILIZERS ARE APPLIED ON AN AS NEEDED, LIMITED BASIS. NO SOIL CONDITIONERS ARE USED AT WASHINGTON NAVY YARD.

C. For each outfall, provide the location and a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff, and a description of the treatment the storm water receives, including the schedule and type of maintenance for control and treatment measures and the ultimate disposal of any solid or fluid wastes other than by discharge.

Outfall Number	Treatment	List Codes from Table 2F-1
	SEE ATTACHMENT 2F-IV.C	

V. Nonstormwater Discharges

A. I certify under penalty of law that the outfall(s) covered by this application have been tested or evaluated for the presence of nonstormwater discharges, and that all nonstormwater discharged from these outfall(s) are identified in either an accompanying Form 2C or Form 2E application for the outfall.

Name and Official Title (type or print)	Signature	Date Signed
MONTE ULMER, CO NSA WASHINGTON		23 JUL 14

B. Provide a description of the method used, the date of any testing, and the onsite drainage points that were directly observed during a test.

SEE ATTACHMENT 2F-V

VI. Significant Leaks or Spills

Provide existing information regarding the history of significant leaks or spills of toxic or hazardous pollutants at the facility in the last three years, including the approximate date and location of the spill or leak, and the type and amount of material released.

NO SIGNIFICANT LEAKS OR SPILLS KNOWN WITHIN THE PAST THREE YEARS

Continued from Page 2

EPA ID Number (copy from Item 1 of Form 1)
DC0000141**VII. Discharge Information**

A, B, C, & D See instructions before proceeding. Complete one set of tables for each outfall. Annotate the outfall number in the space provided.
Table VII-A, VII-B, VII-C are included on separate sheets numbers VII-1 and VII-2.

E. Potential discharges not covered by analysis – is any toxic pollutant listed in table 2F-2, 2F-3, or 2F-4, a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

☐ Yes (list all such pollutants below)☒ No (go to Section IX)**VIII. Biological Toxicity Testing Data**

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☐ Yes (list all such pollutants below)☒ No (go to Section IX)**IX. Contract Analysis Information**

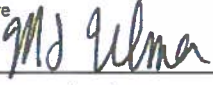
Were any of the analyses reported in Item VII performed by a contract laboratory or consulting firm?

☒ Yes (list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below)☐ No (go to Section X)

A. Name	B. Address	C. Area Code & Phone No.	D. Pollutants Analyzed
CAPE FEAR ANALYTICAL	3306 KITTY HAWK RD, SUITE 120 WILMINGTON, NC 28405	910.295.0421	PCB CONGENERS
MICROBAC LABORATORIES, INC.	156 STARLIGHT DRIVE MARIETTA, OH 45750	800.373.4071	ALL OTHER PARAMETERS
WATER TESTING LABS OF MARYLAND	1000 BUTTERWORTH COURT STEVENSVILLE, MD 21665	410.643.7711	BACTERIAL PARAMETERS

X. Certification

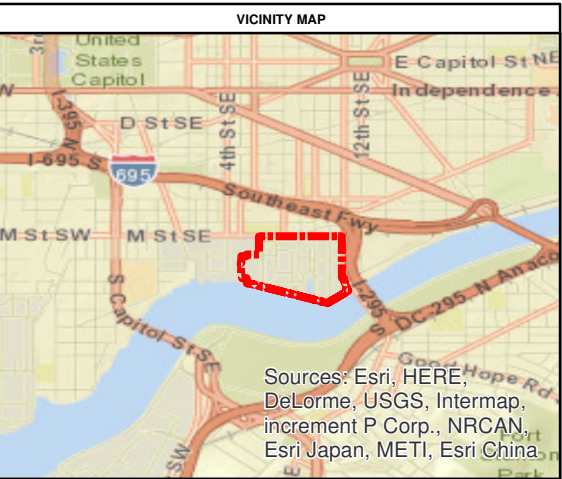
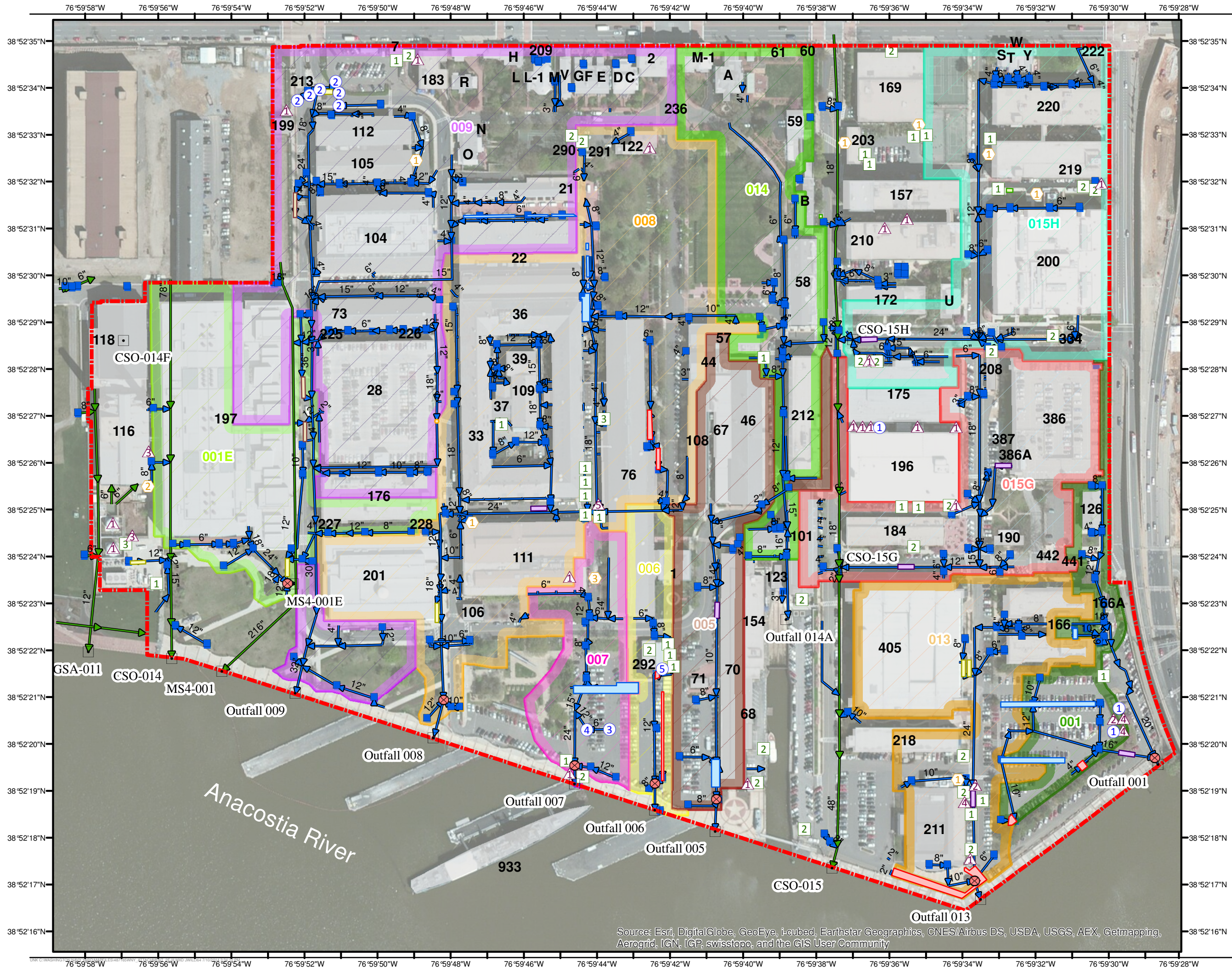
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A. Name & Official Title (Type Or Print) MONTE ULMER, COMMANDING OFFICER NSA WASHINGTON	B. Area Code and Phone No. 202-433-0415
C. Signature 	D. Date Signed 23 JUL 14

Attachment 2F-I/IV.A
 Outfall Details

Outfall No	Latitude			Longitude			Basin Area (Acres)	Receiving Water
	Deg	Min	Sec	Deg	Min	Sec		
001	38	52	19	76	59	29	2.15	Anacostia River
005	38	52	18	76	59	41	3.74	Anacostia River
006	38	52	18	76	59	43	1.42	Anacostia River
007	38	52	18	76	59	45	2.07	Anacostia River
008	38	52	20	76	59	49	12.55	Anacostia River
009	38	52	21	76	59	53	12.55	Anacostia River
013	38	52	16	76	59	34	5.08	Anacostia River
014A	38	52	29	76	59	57	4.62	Anacostia River
MS4-001E	38	52	23	76	59	53	4.41	Anacostia River
CSO-015G	38	52	23	76	59	37	4.73	Anacostia River
CSO-015H	38	52	28	76	59	37	6.69	Anacostia River

*CSO-014F is inactive and out of service.



Legend

- Tidemark Valves
- Outfalls
- Drop Inlets
- Buildings
- Installation Boundary

STORM SEWER PIPES

- District of Columbia
- US Navy

HAZARDOUS MATERIALS/WASTE

- Aboveground Storage Tank
- Drums
- Compressed Gas Cylinders
- Corrosive/Flammable in metals cabinets/storage
- Grease Bin

MATERIAL STORAGE AREAS

- Dumpster
- Transformer
- Miscellaneous Metal Storage
- Wood/Lumber Storage

MATERIALS LOADING AND ACCESS AREAS

- Loading Dock
- Remote Fill with Secondary Containment
- UST Fillport

BEST MANAGEMENT PRACTICES

- Spill Kit
- Trash Rack
- Vortex
- Snout
- Rain Barrel
- Aqua Swirl
- Bioretention
- Jelly Fish Filter
- Permeable Area
- Pollutant Separator
- Sand Filter
- Tree box

Notes:
1. Outfall CSO-014F is inactive and out of operation.

0 25 50 100 150 Feet

Attachment 2F-III
Washington Navy Yard
Washington, D.C.

Attachment 2F-IV.B
Material Storage Areas

Outfall No	Building No	Material Management Practice Description
001	Waste Storage Area	Structures (Flammables in metal cabinets, drums containing waste materials, subcontractor drum storage area) Materials (spill kit)
001 & 013	166	Dumpster (1 Dumpster) Materials (2 spill kits)
005	46 & 67	Dumpsters (2 dumpsters) Structures (portable toolbox) Tanks (portable generator belly tank)
005	70	Materials (transformer) Dumpsters Tanks (generator belly tank)
006	292 & 394	Dumpsters (3 dumpsters) Structures (transformer under roof)
006, 007, & 008	76	Dumpsters (2 dumpsters) Tanks (portable grease bin)
007 & 008	111	Dumpsters (1 dumpster) Equipment (ventilation) Structures (loading/unloading area, transformer) Tanks (2 aboveground storage tanks, underground storage tank)
008	33	Dumpsters (4 dumpsters) Materials (Pest control traps)
008	37, 39, & 109	Dumpsters (1 dumpster) Equipment (office trailers) Structures (conex box, portable tool boxes)
008	122	Tanks (generator belly tank)
008	36	Dumpsters (3 dumpsters)
009	7	Dumpsters (1 dumpster) Structures (transformer)
009	213	Equipment (ventilation)
009	105 & 112	Materials (bricks, discarded furniture, sandbags) Structures (loading/unloading area)
009	183	Tanks (generator belly tank) Equipment (transformer)
009 & MS4-001E	197	Structures (construction laydown area)
013	211	Materials (flammable and chemical storage locker, inedible grease drums) Structures (loading/unloading area, sewage lift station, 2 transformers) Tanks (generator belly tank)
013	405	Equipment (vehicles)
013 & CSO-015	218	Structures (transformer)
CSO-014 & GSA-001	116 & 118	Dumpsters (dumpster) Materials (compressed gas, miscellaneous metals, pest control trap) Structures (flammable and chemical storage locker, fueling area containment berm) Tanks (2 large above ground fuel tanks)
CSO-015	169	Dumpsters (2 dumpsters) Structures (loading/unloading area, transformer)
CSO-015	203	Dumpsters (2 dumpsters) Structures (loading/unloading area)
CSO-015	210	Tanks (2 aboveground storage tanks)
CSO-015G	184	Materials (cleaning supplies) Structures (transformer) Dumpsters (dumpsters)
CSO-015G	196	Equipment (miscellaneous equipment including furniture) Materials (miscellaneous metals, spill kit) Structures (transformer) Tanks (aboveground storage and generator belly tanks)
CSO-015G & CSO-015H	175	Materials (trash cans) Structures (2 transformers) Tanks (aboveground storage tank)
CSO-015H	200	Dumpster (1 dumpster) Structures (loading/unloading area, transformers) Tanks (Generator belly tank)
CSO-015H	219	Dumpster (1 dumpster) Materials (sandbags) Structures (loading/unloading area)
CSO-015H	235	Equipment (small generator)
MS4-001E	199	Tanks (generator belly tank)
Sheet Flow	68	Structures (transformer)
Sheet Flow	224	Structures (transformer)

Attachment 2F-IV.C
Structural BMPs

BMP Type	Drainage Basin	Treated Area (acres)	Location	Year of Installation
Permeable Pavement	001	0.18	SE Parking Lot, South Bldg 166	2002
Permeable Pavement	001	0.31	SE Parking Lot, South Bldg 166	2002
Bio Retention	001	0.08	SE Parking Lot, South Bldg 166	2002
Bio Retention	001	0.23	SE Parking Lot, South Bldg 166	2002
Permeable Pavement	001	0.09	East Bldg 166	2002
Pollutant Separator (Aquaswirl)	001	TBD	Parking Lot, South Bldg 166	2013
Sand Filter	MS4-001E	1.23	Isaac Hull Ave, South Bldg 197A	2002
Sand Filter	MS4-001E	TBD	NE corner of cooling tower	NA
Permeable Pavement	005	0.25	Parking Lot, SW Corner Bldg 70	2002
Pollutant Separator (Aquaswirl)	005	3.7	Parking Lot, NW Corner Bldg 70	2014
Bio Retention	006	0.36	Parking Lot, South Bldg 292	2002
Bio Retention	006	0.15	Parking Lot, SE Corner Bldg 292	2002
Rain Barrel	006	0.025	Parking Lot, South Bldg 292	2002
Permeable Pavement	007	0.33	Parking Lot, East of Willard Park	2002
Polutant Separator (Snout)	007	TBD	Parking lot West of Building 70	Prior to 2002
Polutant Separator (Vortex)	007	TBD	Parking lot West of Building 70	Prior to 2002
Permeable Pavement	008	0.16	East Bldg 22	2002
Permeable Pavement	008	TBD	East Bldg 22	2002
Permeable Pavement	008	TBD	East Bldg 22	2002
Permeable Pavement	008	TBD	East Bldg 22	2002
Bio Retention	008	0.35	East Bldg 76	2002
Bio Retention	008	0.17	East Bldg 76	2002
Sand Filter	008	0.84	NE Corner Bldg 201	2002
Trash Racks (6)	009	TBD	Building 213; Warrington Road and Isaac Hall Avenue	2014
Permeable Pavement	009	0.32	North Building 22	2002
Permeable Pavement	009	TBD	North Building 22	2002
Permeable Pavement	009	TBD	North Building 22	2002
Jelly Fish	009	1.17	West Bldg 28	2014
Jelly Fish	009	1.51	West Bldg 104	2014
Sand Filter	009	0.78	North Bldg 112	2002
Sand Filter	009	1.13	West Bldg 28	2002
Pollutant Separator	009	1.13	East Bldg 28	2002
Pollutant Separator (Aquaswirl)	009	TBD	Kennon St SE, between Bldgs 33 and 111	2013-2014
Bio Retention	013	0.22	South Bldg 211	2002
Sand Filter	013	1.69	West Bldg 405	2002
Sand Filter	013	*	West Bldg 406	2002
Pollutant Separator (Aquaswirl)	013	TBD	10th Street, NE Corner Bldg 211	2014
Pollutant Separator (Aquaswirl)	CSO-15G	TBD	O Street SE, Between Bldgs 104 and 405	2013 - 2014
Pollutant Separator (Aquaswirl)	CSO-15H	TBD	N Street SE, Between Bldgs 172 and 175	2013 - 2014
Tree-box Filter	CSO-15H	0.5	North Building 200	2010
Tree-box Filter	*	*	9th St SE, North of Bldg 58	2002

Notes:

TBD - to be determined

Attachment 2F-V
2010 Illicit Discharge Survey Observations

Outfall	Flow Observed	Flow Temp (°C)	pH	TRC (mg/L)	Clarity	Flow rate (L/min)	Source
001	None	NA	NA	NA	NA	NA	NA
005	Yes	20	7.68	0.03	Clear	< 1	HVAC condensate
006	None	NA	NA	NA	NA	NA	NA
007	None	NA	NA	NA	NA	NA	NA
008	None	NA	NA	NA	NA	NA	NA
009	None	NA	NA	NA	NA	NA	NA
013	Yes	18	7.82	0.04	Clear	< 1	HVAC condensate
014A	None	NA	NA	NA	NA	NA	NA
MS4-001E	None	NA	NA	NA	NA	NA	NA
CSO-014F	None	NA	NA	NA	NA	NA	NA
CSO-015G	None	NA	NA	NA	NA	NA	NA
CSO-015H	None	NA	NA	NA	NA	NA	NA

Notes:

HVAC - heating, ventilation, and air conditioning

L/min - Liters per minute

NA - Not Applicable

TRC - Total Residual Chlorine

Outfall 001

OUTFALL 001

Pollutant and CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease		N/A				
Biological Oxygen Demand (BOD5)	7.27 MG/L		3.4 MG/L		5	
Chemical Oxygen Demand (COD)						
Total Suspended Solids (TSS)						
Total Nitrogen	1.74 MG/L		0.9 MG/L		5	
Total Phosphorus	1 U MG/L		0.4U MG/L*		5	
pH	Minimum	Maximum	Minimum	Maximum		

[illegible]

*Indicates half of the detection limit (U qualified data) was used to determine the average concentration

Continued from the Front

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

[illegible]

Part D – Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event (gallons/minute or specify units)	6. Total flow from rain event (gallons or specify units)
3/18/2013	356	0.25		0.007 CFS	0.01 MG
4/5/2013	425	0.21		0.003 CFS	0.00 MG
4/29/2013	440	0.18		0.001 CFS	0.00 MG
6/6/2013	1495	2.04		0.125 CFS	0.08 MG
11/26/2013	1805	1.82		0.089 CFS	0.06 MG
12/14/2013	405	0.33		0.016 CFS	0.01 MG
1/10/2014	2100	1.18		0.041 CFS	0.03 MG
4/15/2014	1280	1.39		0.085 CFS	0.06 MG

7. Provide a description of the method of flow measurement or estimate.

ESTIMATED FLOW USING RUNOFF COEFFICIENTS AND DRAINAGE BASIN AREA (PERVIOUS AND IMPERVIOUS)

U data qualifier indicates concentration is below the method detection limit

*Indicates half of the detection limit (U qualified data) was used to determine the average concentration

HML = 100 milliliters

Outfall MS4-001E

OUTFALL MS4-001E

Pollutant and CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease		N/A				
Biological Oxygen Demand (BOD5)	71.1 MG/L		16 MG/L*		5	
Chemical Oxygen Demand (COD)						
Total Suspended Solids (TSS)	196 MG/L		67 MG/L*		5	
Total Nitrogen	9.0 MG/L		2.8 MG/L		5	
Total Phosphorus	0.772 MG/L		0.5 MG/L*		5	
pH	Minimum	Maximum	Minimum	Maximum		

[illegible]

*Indicates half of the detection limit (U qualified data) was used to determine the average concentration.

Continued from the Front

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

[illegible]

Part D – Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event (gallons/minute or specify units)	6. Total flow from rain event (gallons or specify units)
3/18/2013	356	0.25		0.036 CFS	0.02 MG
4/5/2013	425	0.21		0.019 CFS	0.01 MG
4/29/2013	440	0.18		0.011 CFS	0.01 MG
6/6/2013	1495	2.04		0.288 CFS	0.19 MG
11/26/2013	1805	1.82		0.207 CFS	0.13 MG
1/10/2014	2100	1.18		0.100 CFS	0.07 MG
4/15/2014	1280	1.39		0.210 CFS	0.13 MG

7. Provide a description of the method of flow measurement or estimate.

ESTIMATED FLOW USING RUNOFF COEFFICIENTS AND DRAINAGE BASIN AREA (PERVIOUS AND IMPERVIOUS)

U data qualifier indicates concentration is below the method detection limit

*Indicates half of the detection limit (U qualified data) was used to determine the average concentration

HML = 100 milliliters

Outfall 005

OUTFALL 005

Pollutant and CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease		N/A				
Biological Oxygen Demand (BOD5)	18.9 MG/L		6.4 MG/L		5	
Chemical Oxygen Demand (COD)						
Total Suspended Solids (TSS)	122 MG/L		35 MG/L		5	
Total Nitrogen	1.89 MG/L		0.91 MG/L		5	
Total Phosphorus	1 U MG/L		0.5 MG/L*		5	
pH	Minimum	Maximum	Minimum	Maximum		

[illegible]

*Indicates half of the detection limit (U qualified data) was used to determine the average concentration

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

Part D – Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.									
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1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event (gallons/minute or specify units)	6. Total flow from rain event (gallons or specify units)
4/5/2013	425	0.21		0.02 CFS	0.01 MG
4/29/2013	440	0.18		0.01 CFS	0.01 MG
6/6/2013	1495	2.04		0.24 CFS	0.16 MG
11/26/2013	1805	1.82		0.18 CFS	0.11 MG
12/14/2013	405	0.33		0.05 CFS	0.03 MG
1/10/2014	2100	1.18		0.09 CFS	0.06 MG
4/15/2014	1280	1.39		0.18 CFS	0.11 MG

ESTIMATED FLOW USING RUNOFF COEFFICIENTS AND DRAINAGE BASIN AREA (PERVIOUS AND IMPERVIOUS) .

Outfall 006

OUTFALL 006

Pollutant and CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease		N/A				
Biological Oxygen Demand (BOD5)	4.29 MG/L		2.2 MG/L		6	
Chemical Oxygen Demand (COD)						
Total Suspended Solids (TSS)	10.5 MG/L		5.7 MG/L*		6	
Total Nitrogen	2.72 MG/L		1.6 MG/L		6	
Total Phosphorus	1 U MG/L		0.4 MG/L*		6	
pH	Minimum	Maximum	Minimum	Maximum		

[illegible]

*Indicates half of the detection limit (U qualified data) was used to determine the average concentration

Continued from the Front

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

[illegible]

Part D – Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event (gallons/minute or specify units)	6. Total flow from rain event (gallons or specify units)
3/18/2013	356	0.25		0.01 CFS	0.01 MG
4/5/2013	425	0.21		0.00 CFS	0.00 MG
4/29/2013	440	0.18		0.00 CFS	0.00 MG
6/6/2013	1495	2.04		0.09 CFS	0.06 MG
11/26/2013	1805	1.82		0.06 CFS	0.04 MG
12/14/2013	405	0.33		0.01 CFS	0.01 MG
1/10/2014	2100	1.18		0.03 CFS	0.02 MG
4/15/2014	1280	1.39		0.06 CFS	0.04 MG

7. Provide a description of the method of flow measurement or estimate.

ESTIMATED FLOW USING RUNOFF COEFFICIENTS AND DRAINAGE BASIN AREA (PERVIOUS AND IMPERVIOUS)

U data qualifier indicates concentration is below the method detection limit

*Indicates half of the detection limit (U qualified data) was used to determine the average concentration

HML = 100 milliliters

Outfall 007

OUTFALL 007

Pollutant and CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease		N/A				
Biological Oxygen Demand (BOD5)	22 MG/L		8.0 MG/L		5	
Chemical Oxygen Demand (COD)						
Total Suspended Solids (TSS)	85.5 MG/L		25 MG/L		5	
Total Nitrogen	1.172 MG/L		0.95 MG/L		5	
Total Phosphorus	1 U MG/L		0.5 MG/L*		5	
pH	Minimum	Maximum	Minimum	Maximum		

[illegible]

*Indicates half of the detection limit (U qualified data) was used to determine the average concentration

Continued from the Front

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

[illegible]

Part D – Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event (gallons/minute or specify units)	6. Total flow from rain event (gallons or specify units)
4/29/2013	440	0.18		0.001 CFS	0.00 MG
6/6/2013	1495	2.04		0.120 CFS	0.08 MG
11/26/2013	1805	1.82		0.090 CFS	0.06 MG
12/14/2013	405	0.33		0.020 CFS	0.01 MG
1/10/2014	2100	1.18		0.040 CFS	0.03 MG
4/15/2014	1280	1.39		0.080 CFS	0.05 MG

7. Provide a description of the method of flow measurement or estimate.

ESTIMATED FLOW USING RUNOFF COEFFICIENTS AND DRAINAGE BASIN AREA (PERVIOUS AND IMPERVIOUS).

U data qualifier indicates concentration is below the method detection limit

*Indicates half of the detection limit (U qualified data) was used to determine the average concentration

HML = 100 milliliters

Outfall 008

OUTFALL 008

Pollutant and CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease		N/A				
Biological Oxygen Demand (BOD5)	7.19 MG/L		2.8 MG/L*		4	
Chemical Oxygen Demand (COD)						
Total Suspended Solids (TSS)	50 MG/L		15 MG/L*		4	
Total Nitrogen	0.671 MG/L		0.35 MG/L		4	
Total Phosphorus	1 U MG/L		0.5 MG/L*		4	
pH	Minimum	Maximum	Minimum	Maximum		

[illegible]

*Indicates half of the detection limit (U qualified data) was used to determine the average concentration

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

Part D –	Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.
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1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event (gallons/minute or specify units)	6. Total flow from rain event (gallons or specify units)
6/6/2013	1495	2.04		0.730 CFS	0.47 MG
11/26/2013	1805	1.82		0.520 CFS	0.33 MG
12/14/2013	405	0.33		0.090 CFS	0.06 MG
1/10/2014	2100	1.18		0.240 CFS	0.15 MG
4/15/2014	1280	1.39		0.840 CFS	0.32 MG

ESTIMATED FLOW USING RUNOFF COEFFICIENTS AND DRAINAGE BASIN AREA (PERVIOUS AND IMPERVIOUS) .

Outfall 009

OUTFALL 009

Pollutant and CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	3.38 U MG/L	N/A	1.5 MG/L*		5	
Biological Oxygen Demand (BOD5)	2.58 MG/L		1.5 MG/L*		5	
Chemical Oxygen Demand (COD)						
Total Suspended Solids (TSS)	8.5 MG/L		4.3 MG/L*		5	
Total Nitrogen	2.31 MG/L		1.8 MG/L		5	
Total Phosphorus	0.68 MG/L		0.6 MG/L		5	
pH	Minimum	Maximum	Minimum	Maximum		

[illegible]

*Indicates half of the detection limit (U qualified data) was used to determine the average concentration

Continued from the Front

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

[illegible]

Part D – Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event (gallons/minute or specify units)	6. Total flow from rain event (gallons or specify units)
4/5/2013	425	0.21		0.031 CFS	0.02 MG
4/29/2013	440	0.18		0.016 CFS	0.01 MG
6/6/2013	1495	2.04		0.770 CFS	0.50 MG
11/26/2013	1805	1.82		0.550 CFS	0.36 MG
12/14/2013	405	0.33		0.130 CFS	0.08 MG
1/10/2014	2100	1.18		0.260 CFS	0.17 MG
4/15/2014	1280	1.39		0.540 CFS	0.35 MG

7. Provide a description of the method of flow measurement or estimate.

ESTIMATED FLOW USING RUNOFF COEFFICIENTS AND DRAINAGE BASIN AREA (PERVIOUS AND IMPERVIOUS)

U data qualifier indicates concentration is below the method detection limit

*Indicates half of the detection limit (U qualified data) was used to determine the average concentration

HML = 100 milliliters

Outfall 013

OUTFALL 013

Pollutant and CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease		N/A				
Biological Oxygen Demand (BOD5)	2.13 MG/L		1.6 MG/L*		6	
Chemical Oxygen Demand (COD)						
Total Suspended Solids (TSS)	232 MG/L		41 MG/L*		6	
Total Nitrogen	1.72 MG/L		1.2 MG/L		6	
Total Phosphorus	1 U MG/L		0.4 MG/L*		6	
pH	Minimum	Maximum	Minimum	Maximum		

[illegible]

*Indicates half of the detection limit (U qualified data) was used to determine the average concentration

Continued from the Front

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

[illegible]

Part D – Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event (gallons/minute or specify units)	6. Total flow from rain event (gallons or specify units)
3/18/2013	356	0.25		0.041 CFS	0.03 MG
4/5/2013	425	0.21		0.021 CFS	0.01 MG
4/29/2013	440	0.18		0.013 CFS	0.01 MG
6/6/2013	1495	2.04		0.330 CFS	0.21 MG
11/26/2013	1805	1.82		0.240 CFS	0.15 MG
12/14/2013	405	0.33		0.070 CFS	0.04 MG
1/10/2014	2100	1.18		0.120 CFS	0.08 MG
4/15/2014	1280	1.39		0.240 CFS	0.15 MG

7. Provide a description of the method of flow measurement or estimate.

ESTIMATED FLOW USING RUNOFF COEFFICIENTS AND DRAINAGE BASIN AREA (PERVIOUS AND IMPERVIOUS).

U data qualifier indicates concentration is below the method detection limit

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HML = 100 milliliters

Outfall 014A

OUTFALL 014A

Pollutant and CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	3.64 U MG/L	N/A	1.5U MG/L*		5	
Biological Oxygen Demand (BOD5)	14.5 MG/L		7.6 MG/L		6	
Chemical Oxygen Demand (COD)						
Total Suspended Solids (TSS)	36.5 MG/L		11 MG/L		6	
Total Nitrogen	2.05 MG/L		1.3 MG/L		6	
Total Phosphorus	1 U MG/L		0.4 MG/L*		6	
pH	Minimum	Maximum	Minimum	Maximum		

[illegible]

*Indicates half of the detection limit (U qualified data) was used to determine the average concentration

Continued from the Front

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

[illegible]

Part D – Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event (gallons/minute or specify units)	6. Total flow from rain event (gallons or specify units)
3/18/2013	356	0.25		0.031 CFS	0.02 MG
4/5/2013	425	0.21		0.033 CFS	0.02 MG
4/29/2013	440	0.18		0.039 CFS	0.03 MG
6/6/2013	1495	2.04		0.090 CFS	0.06 MG
11/26/2013	1805	1.82		0.060 CFS	0.04 MG
12/14/2013	405	0.33		0.010 CFS	0.01 MG
1/10/2014	2100	1.18		0.010 CFS	0.01 MG
4/15/2013	1280	1.39		0.040 CFS	0.03 MG

7. Provide a description of the method of flow measurement or estimate.

ESTIMATED FLOW USING RUNOFF COEFFICIENTS AND DRAINAGE BASIN AREA (PERVIOUS AND IMPERVIOUS).

U data qualifier indicates concentration is below the method detection limit

*Indicates half of the detection limit (U qualified data) was used to determine the average concentration

HML = 100 milliliters

Outfall CSO-015G

OUTFALL CSO-015G

Pollutant and CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease		N/A				
Biological Oxygen Demand (BOD5)	16.3 MG/L		8.5 MG/L		6	
Chemical Oxygen Demand (COD)						
Total Suspended Solids (TSS)	85 MG/L		24 MG/L*		6	
Total Nitrogen	1.71 MG/L		0.94 MG/L		6	
Total Phosphorus	1 U MG/L		0.4 MG/L*		4	
pH	Minimum	Maximum	Minimum	Maximum		

[illegible]

*Indicates half of the detection limit (U qualified data) was used to determine the average concentration

Continued from the Front

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

[illegible]

Part D – Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event (gallons/minute or specify units)	6. Total flow from rain event (gallons or specify units)
3/18/2013	356	0.25		0.038 CFS	0.02 MG
4/5/2013	425	0.21		0.020 CFS	0.01 MG
4/29/2013	440	0.18		0.012 CFS	0.01 MG
6/6/2013	1495	2.04		0.310 CFS	0.20 MG
11/26/2013	1805	1.82		0.220 CFS	0.14 MG
12/14/2013	405	0.33		0.060 CFS	0.04 MG
1/10/2014	2100	1.18		0.110 CFS	0.07 MG
4/15/2014	1280	1.39		0.220 CFS	0.14 MG

7. Provide a description of the method of flow measurement or estimate.

ESTIMATED FLOW USING RUNOFF COEFFICIENTS AND DRAINAGE BASIN AREA (PERVIOUS AND IMPERVIOUS)

U data qualifier indicates concentration is below the method detection limit

*Indicates half of the detection limit (U qualified data) was used to determine the average concentration

HML = 100 milliliters

Outfall CSO-015H

OUTFALL CSO-015H

Pollutant and CAS Number (if available)	Maximum Values (include units)		Average Values (include units)		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	2.88 U MG/L	N/A			1	
Biological Oxygen Demand (BOD5)	20.1 MG/L		7.1 MG/L		6	
Chemical Oxygen Demand (COD)						
Total Suspended Solids (TSS)	187 MG/L		42 MG/L*		6	
Total Nitrogen	1.92 MG/L		0.1 MG/L		6	
Total Phosphorus	1 U MG/L		0.4 MG/L*		6	
pH	Minimum	Maximum	Minimum	Maximum		

[illegible]

*Indicates half of the detection limit (U qualified data) was used to determine the average concentration

Continued from the Front

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

[illegible]

Part D – Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event (in minutes)	3. Total rainfall during storm event (in inches)	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event (gallons/minute or specify units)	6. Total flow from rain event (gallons or specify units)
3/18/2013	356	0.25		0.054 CFS	0.03 MG
4/5/2013	425	0.21		0.028 CFS	0.02 MG
4/29/2013	440	0.18		0.017 CFS	0.01 MG
6/6/2013	1495	2.04		0.437 CFS	0.28 MG
11/26/2013	1805	1.82		0.314 CFS	0.20 MG
12/14/2013	405	0.33		0.092 CFS	0.06 MG
1/10/2014	2100	1.18		0.153 CFS	0.10 MG
4/15/2014	1280	1.39		0.313 CFS	0.20 MG

7. Provide a description of the method of flow measurement or estimate.

ESTIMATED FLOW USING RUNOFF COEFFICIENTS AND DRAINAGE BASIN AREA (PERVIOUS AND IMPERVIOUS).

U data qualifier indicates concentration is below the method detection limit

*Indicates half of the detection limit (U qualified data) was used to determine the average concentration

HML = 100 milliliters